DOCUMENT RESUME

ED 157 451 HE 010 288

AUTHOR Slawski, Carl
TITLE Professional Socialization in Organizational Context: Hypotheses and Comparative Cases.
PUB DATE 73
NOTE 32p.; Paper presented to the American Psychological Association (New York, New York, August 27, 1973); Best available copy

EDRS PRICE MF-$0.83 HC-$2.06 Plus Postage.
DESCRIPTORS Career Planning; College Faculty; Comparative Analysis; Graduate Students; Higher Education; *Intellectual Disciplines; *Interpersonal Relationship; Interviews; *Organizational Climate; Professional Education; *Socialization; *Social Reinforcement; Specialization; *Student Teacher Relationship

ABSTRACT

A guide for future research was developed for professional socialization processes, focusing on graduate education, aspects of career development, disciplinary and departmental ideology, and relationships between socializer and socialee (or faculty or graduate student). The analysis centers around the hypothesis that social distance between a specialist and his associates, both on and off the job, increases (1) with the hardness of his typical research design, and (2) with a decrease in the social relevance of his formal day-to-day work as a specialist. Based in part on questionnaire data from 148 respondents dealing with means and goals of education, but primarily on interpretations of focused interviews with eight faculty members and 46 graduate students in four departments of a large public university. The use of some of these key elements and interrelated hypotheses is illustrated with case material. (Author/LBH)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED157451

PROFESSIONAL SOCIALIZATION IN ORGANIZATIONAL CONTEXT: HYPOTHESES AND COMPARATIVE CASES

by Carl Slawski

Abstract

A guide for future research was developed in terms of an elaboration and illustration of the use of a set of key sociological elements and hypotheses about professional socialization processes, focusing on graduate education, aspects of career development, disciplinary and departmental ideology, and relationships between socializer and socializee, or here between faculty and graduate students. The analysis centers around the suggestive hypothesis that Social distance between a specialist and his associates, both on and off the job, increases 1) with the hardness of his typical research design, and 2) with a decrease in the social relevance of his formal day-to-day work as a specialist. Based in part on questionnaire data (from 148 respondents) dealing with means and goals of education, but primarily based on interpretations of focused interviews with faculty members (n = 8) and graduate students (n = 46) in four departments of a large public university, the use of some of these key elements and interrelated hypotheses is illustrated with case material.

Given at ASA., New York, Aug. 27, 1973

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

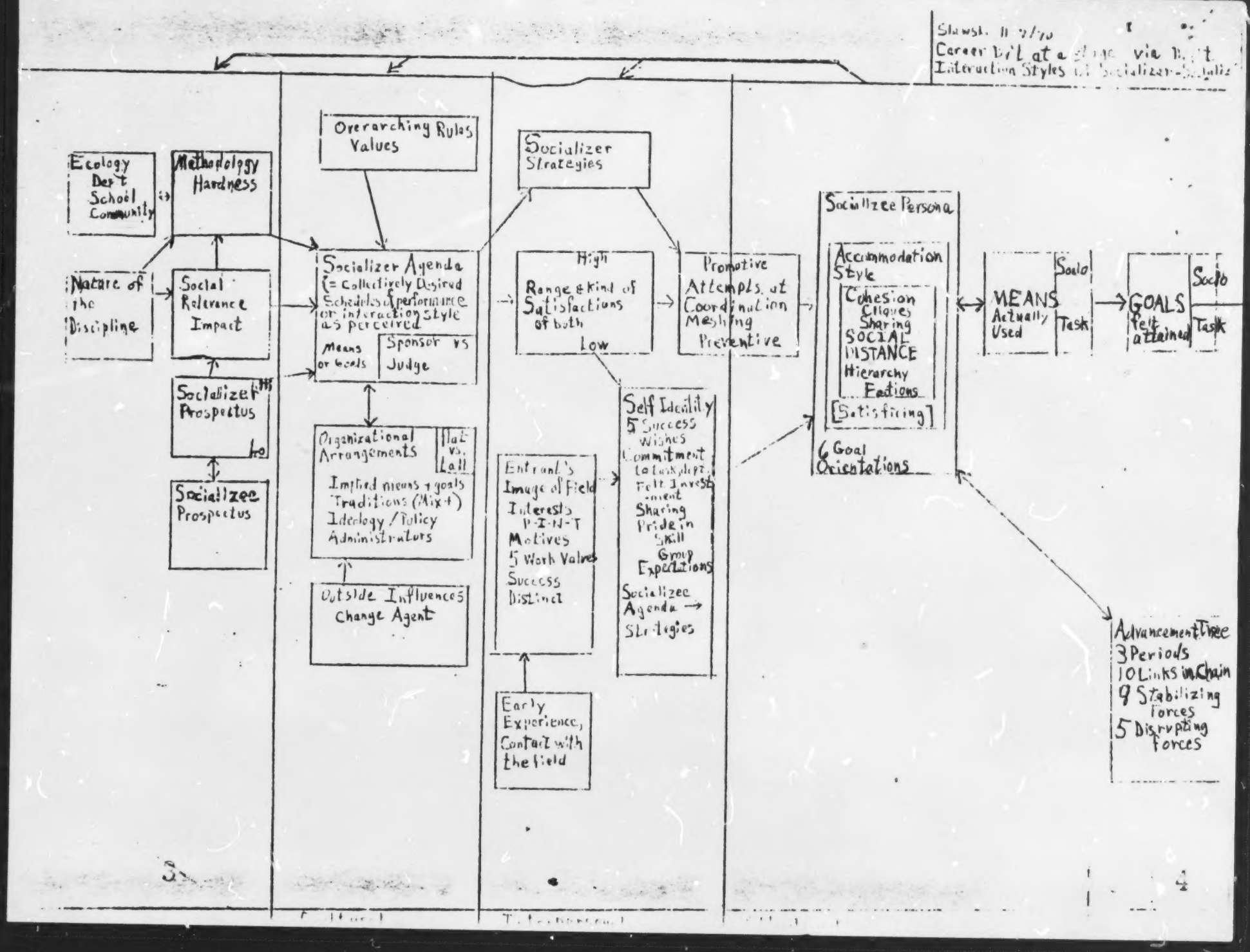
Carl Slawski

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) AND USERS OF THE ERIC SYSTEM."

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

HE 010 248


Ecology
Dept
School
Community
Methodology
Hardness
Nature of the Discipline
Social Relevance Impact
Socializer Prospectus
Socializee Prospectus
Overarching Rules Values
Socializer Agenda
(= Collectively Desired Schedules of performance or interaction style as perceived
Means or Goals
Sponsor vs Judge
Organizational Arrangements
Flat vs. Tall
Implied means + goals
Traditions (Mix-t)
Ideology / Policy
Administrators
Outside Influences
Change Agent
Socializer Strategies
High
Range & Kind of Satisfactions of both
Low
Promotive
Attempts at Coordination
Meshing
Preventive
Entrant's Image of Field
Interests
P-I-N-T
Motives
5 Work Values
Success
Distinct
Early Experience, Contact with the field
Self Identity
5 Success Wishes
Commitment to task/dept.
Felt Investment
Sharing
Pride in Skill
Group Expectations
Socializee Agenda → Strategies
Socializee Persona
Accommodation Style
Cohesion
Cliques
Sharing
SOCIAL DISTANCE
Hierarchy
Factions
[Satisficing]
6 Goal Orientations
MEANS
Actually Used
Socio
Task
GOALS
felt attained
Socio
Task
Advancement Tree
3 Periods
10 Links in Chain
9 Stabilizing Forces
5 Disrupting Forces

PROFESSIONAL SOCIALIZATION IN ORGANIZATIONAL CONTEXT: HYPOTHESES AND COMPARATIVE CASES

The overriding concern of this paper will be to draw out a set of dimensions together with some broad-ranging hypotheses with which to more objectively compare varying occupational types in organizational context. The strategy of research used was such as to point up the distinctive qualities and emphasize the differences between a range of disciplines in their most revealing circumstances, namely, by focusing on the key socializing relationship, the graduate student-faculty relationship in university departments. It was anticipated that the motives in the development of identification with the respective occupations would come out clearest here. In particular the "acquisition of ideologies" (a term used by Becker and Carper : 1956), seems to be more easily highlighted in such educational circumstances. To further point up differences, as well as to have a broader base for generalization, the disciplines chosen for study were selected because of their diversity, with one each from engineering (mechanical engineering), natural science (physiology), social science (anthropology), and the humanities (philosophy), tentatively arranged in order of descending objectivity of subject matter. The initial basic assumption to be made here then is that the professional ideology (i.e., the essential belief system, regarding both the objectivity[1] and Social relevance) of a discipline will influence the style of (graduate student-faculty relationship, or in general, the style of) social relationship between the professional and his associates. And obviously, reciprocally, the style of relationship affects the ideology.

Interviews with faculty and graduate students in the four university departments revolved around the three variables of the twofold more concrete central suggestive hypothesis: Social distance between a specialist and his associates, both on and off the job, increases 1) with the hardness of his typical research design, and 2) with a decrease in the social relevance of his formal day-to-day work as a specialist. The research design of this study is that of a comparative exploratory case study, with the result that the hypothesis can only be demonstrated, not rigorously tested.

The single directly relevant comparative study of university departments was done by Becker and Carper, and published in differing aspects as "The Elements of Identification with an Occupation," and "The Development of Identification with an Occupation" (1956b and 1956a). While these two papers were used as the starting point for the interviews of the present study of motives and departmental interaction style, they do not go into depth on the values or ideology of the departments. Yet other extant research is almost entirely tangential, aside from speculative and suggestive efforts on the "two or more cultures" of the university (cf. C.P. Snow: 1959; and Lewis: 1967) indicating basic differences as well as disagreements based on characteristic values and social behavior styles of scientists vs. humanists.

Research Strategy and Methods

For the sake of completeness of analysis in this exploratory study, it seemed desirable to compare in detail a small number of departments representing the main divisions or colleges of the university. A limiting factor here was the fact that the choice of such departments would have to assume

that each represents adequately the cultural ideology of the respective branch of learning. But given this assumption, the other things (e.g., organizational structure) being equal, such comparison should throw light on the "two or more cultures" debate. A further result of this comparison will be to suggest some initial hypotheses concerning the social and cultural values, that is, the ideology of the intellectual professions (Knapp and Goodrich: 1952; Roe: 1953), or at least of the profession of university professor (Logan Wilson: 1942; F. Znaniecki: 1940; L. Coser: and B. Rosenberg: 1964). Conveniently enough, the three departments studied by Becker and Carper twelve years previously (1956) represent three of these branches of knowledge, namely, engineering (mechanical engineering), natural science (physiology) and humanities (philosophy). The fourth department was chosen to round out the representativeness of the departments with the addition of a social science, namely anthropology.

More specific to the central focus of the present research, in their article, "The Elements of Identification with an Occupation," Becker and Carper suggest four major elements of work identification: 1) occupational title, and associated ideology (which is of central concern in the present research); 2) commitment to task; 3) commitment to particular organizations or institutional positions; and 4) significance for one's position in the larger society. They go on to illustrate the analytic utility and the kind of theoretical use to which these concepts might be put. Using this approach as a model, the present paper will elaborate on these and other variables, focusing on how work identifications function within a work organization.

Consideration of these elements of identification, along with initial interview pretesting with about fifteen respondents from a wide range of

departments, led to the development of the present interview schedule. The initial contact with most respondents was made with a mailed questionnaire operationalizing a set of twelve task vs. socio-emotional means and goals of education (cf. author's dissertation: 1969), at the end of which they were asked to volunteer for an interview. Approximately ten volunteers in each of the four departments were interviewed concerning various aspects of their professional career development, especially as affected by their experience in the department, with particular attention to the style of relationship between faculty and graduate students. This was supplemented by casually becoming acquainted with departmental announcements, and to some extent by participant observation of classes and other informal gatherings as well as by repeated detailed discussions with a few informants.

In practice, interviews lasted from a half hour to four hours, with the average length of time being about an hour and fifteen minutes. In practice, the most revealing questions were the following: 1) How did you become interested in your field? 2) What typically motivates a person to enter your field? 3) How did you happen to come to this department? 4) Which faculty in your department have been most helpful and stimulating to you? 5) What suggestions would you have to improve the graduate training in your department? 6) What does it take to be a successful (e.g., anthropologist)? 7) How would you rank the quality of the faculty and students in your department? 8) Do people in your field have a wide range of interests outside of their field compared to other academic people? 9) Do they have a wide range of friends among people in other fields? 10) How do people in your discipline differ from other academics in their

way of thinking and social values (e.g., rationality, liberalism, activism, etc.)?

The open-ended quality of the questions, together with the follow-up probes after each of these questions resulted in an abundance of background information, and a feel for the context as perceived by the respondents. Since the interview items were open-ended, there are no explicit operational definitions of the three key elements, but only supporting interpretive evidence. Thus, a great deal of inference and judgment of plausibility was necessarily used in arriving at the final interpretation presented here of the type of methodology used, the social relevance of the discipline, and of the behavior style typical among the members of a department and a discipline.

Following the usual questions on the interview schedule, interviewees in the three departments treated by Becker and Carper were asked to comment on the pages of Becker and Carper's report on each respondent's own department as of twelve years ago, in order to point out changes. Finally for the later interviews, especially for anthropology (where there were a larger total number of interviews, and which was not one of the departments studied by Becker and Carper), interviewees were asked to comment on our own summary of their department based on preliminary observations and approximately the first ten interviews. Finally, it should be mentioned that, due to the basically exploratory nature of this study and the open-ended quality of the interviews, the interview data is not in quantitative form. Thus, in analyzing the results, only general impressions and strong trends can be reported with good confidence.

Based on the major topics of the interview schedule, as well as on general impressions of a more descriptive nature, specific to the department surveyed, interview notes were carefully reviewed in order to select out relevant salient items. These were then assembled in a topical outline before being written up as separate summaries of the disciplines and departments (cf. author's dissertation for details: 1969). The resulting descriptions were then shown to several members of the respective departments for comments, criticisms, or qualification, and revised accordingly.

The initial means-goals questionnaire was sent out (to a total of 345, i e.) to all graduate students in the four departments, and to all faculty members in three departments. At the end of the questionnaire the 148 actual respondents were asked to volunteer for a follow-up interview. In those departments where the number of volunteers for an interview was initially small, namely in philosophy and mechanical engineering, contact was made by telephone to solicit cooperation. Among students who received the initial questionnaire the percentage of volunteers for the follow-up interview were as follows: 16 per cent in physiology, 24 per cent in mechanical engineering, and 64 per cent each in philosophy and anthropology. In the end, the actual numbers interviewed were as follows: two philosophy faculty, twelve philosophy students, two anthropology faculty, twenty anthropology students, four physiology faculty, four physiology students, no mechanical engineering faculty, and ten mechanical engineering students. Some of these interviewees in each department achieved the status of informants for this study by submitting to repeated interviews and open-ended questions.

Background and Key Hypotheses

The following sensitizing hypotheses were primarily arrived at inductively, as the case studies progressed. Nevertheless, the attempt is made to state the obvious in full and logical detail, thus approaching an axiomatic, or deductively interrelated set of statements. The basic assumption is made that socialization is a mutual process occurring between the socializer and the socializee (or here the professor and graduate student). (Both of the latter pairs of terms are used to suggest the generalizability of the ideas.) Again, it will be recalled that the overriding hypothesis of the entire study is that the ideology of a specialty is a strong determinant of the mutual accommodation style between specialists. And the central working hypothesis is that social distance between a specialist and his associates, both on and off the job, increases 1) with the hardness of his typical research design, and 2) with a decrease in the social relevance of his formal day-to-day work as a specialist.

1. Restrictiveness of ecological arrangements of offices, laboratories, classrooms and meeting rooms correlates with the social distance between the specialists.

2. Restrictiveness of the ecological arrangements correlates with the hardness of research methodology typically used.

3. High socializer (or faculty member's or superior's) prospectus (or quality and promise) increases the social relevance (or direct social impact of the specialist's work), except in departments top-heavy with senior men (e.g., tenured, full professors) whose reputations have leveled off (especially if the leveling occurred say more than five years ago),

or in the case where a burgeoning department is "on the make" to the point of excessive "status-seeking" (which often amounts to competition at the expense of smooth social relations).

4. Socializer (or faculty) prospectus largely determines socializee (student) prospectus (or quality).

5. The socializer's (faculty's) agenda (or preferred order of interaction style, occurrences and processes, here meaning collective preference for a certain degree of social distance) has more influence than socializee (student) agendas (or essential preferences for style of mutual social interaction).

6. Socializers' (or faculty) agendas are primarily influenced by the hardness of methodology of their specialty, and their prestige in their specialty.

a) This is true for each individual as practiced by that individual.

b) Hardness of methodology leads to social distance.

1) Hardness of methodology is directly associated with the degree of specialization of the professional, with level of abstraction of his typical work, with the extent to which success is seen as a product (rather than intrinsic, or satisfaction with the work itself), and where success is seen as involving largely hard work, with the perception of task oriented means and goals of education as more essential than socio-emotional means and goals, and inversely with the extent of concrete, practical application of the specialty, and also inversely with the extent to which the practitioner's motives for work are extrinsic to the discipline.

c) Social relevance leads to social closeness.

1) Social relevance is correlated with the extent to which empathy is required to do the work, the presence of a sponsorship (or apprenticeship) system (rather than a judge or examination system for evaluating and training students), the degree of marginality of at least some members' habits and way of life to the dominant mores of their society, the extent to which success is viewed as esteem of colleagues, frequency of teaching as a future goal, and the frequency with which socio-emotional means and goals of education are seen as essential by the members of the discipline.

d) Excepting extremes, prestige leads to social closeness with one's associates (at least during the time in which interaction does occur).

7. The degree of formalization of organizational arrangements in a department depends on and reciprocally influences the socializers' (faculty's collective) agenda.

a) Formalization correlates with a socially distant agenda.

8. Formalization is most strongly influenced by the hardness of methodology of the specialists in the department (or subgroups among them).

9. The degree and kind of formalization of organizational arrangements (including selection factors, formalization of requirements, and degree of professionalization) in a department are influenced toward an increase by the ideology of the specialty, the discipline, and the department, expecially in terms of traditions, current and previous administrators' policies, and the implied and explicit collective

feelings among the socializers (faculty) about whether task oriented means and goals of education are considered more essential than socio-emotional means and goals for the specialty, discipline and department at this (the present) stage of historical development.

10. Larger departments (within a given discipline) are less likely to be closely knit (i.e., more likely to be characterized by high social distance).

11. But the feeling of social distance will be less in departments (regardless of size) in which there are cliques or social interaction in subgroups, perhaps based on specialties within the field, or where there is a sponsorship rather than an objective, formal, judge system of training and evaluation of socializees (students) by the socializers (faculty).

12. Social closeness (here, the opposite of social distance between faculty and students, between faculty and faculty, and between student and student) is correlated with the breadth and number of activities of the specialist both in and out of his discipline, with the presence of cliques, the presence of personal idiosyncracies among at least some members of the discipline or department, and with the extent to which socio-emotional means and goals of education are perceived as actually predominating over task oriented means and goals.

Satisfactions

13. Strong satisfactions and strong dissatisfactions are more likely to be felt in disciplines and specialties which have higher social relevance.

14. In disciplines with high social relevance there is more likely to be a stronger expectation of low social distance or close interaction.

15. Hence, when this low social distance is not achieved (alienation or) dissatisfaction will be greater (perhaps increasingly greater) in disciplines with high social relevance.

16. The socializers' (faculty's) satisfaction depends on their feeling of relative achievement (as opposed to relative deprivation, i.e., their accomplishment and prestige relative to individual and collective aspirations for themselves and their specialty and department).

a) This accomplishment can be in terms of research, teaching, administration, and public service (which in turn correlate with salary).

17. Dissatisfactions depend strongly on the surrounding environment, including the plant (the college), the corporation (the university), the status and relative influence of the department and its members in the corporation (the university), and in the surrounding community, as well as the offerings of the city or town in the way of cultural and social activities, the school system, civic pride and significant municipal accomplishments.

18. Socializee (student) dissatisfactions revolve primarily around their (contact with or) social distance from the socializer (faculty) relative to the socializee's (students') essential agendas.

Socializee Agendas

19. Socializees' (students') agendas (and hence occupational personas) depend on their expectations about what their training should be and must be like.

a) A (student's) socializee's tentative occupational persona depends on his agenda as limited and bargained for in the organizational context of his work.

20. Socializees' (students') more firm or hardened expectations for their training depend on their

a) knowledge of and

b) commitment to the task of the specialty,

c) commitment to the department,

d) felt investment relative to other occupational possibilities open to them (as perceived), and

e) pride in skills learned to date (and expected).

21. Socializees (students) will take on a less idealistic and more realistic or pragmatic view of their training the longer they have been in training (i.e., in graduate school).

22. Socializees' (students') agendas initially depend on their expectations, based on their image of the field, motives and early direct or indirect contact and experience with the field.

23. Socializees (students') agendas and expectations are progressively modified in the direction of socialized (faculty) expectations to the extent that their original agendas do not mesh with those of a certain minimum number of socializers' (faculty Members') agendas (i.e., at least enough to form a thesis committee, presuming the socializee remains in the department.)

Space prohibits inclusion of additional hypotheses about identity bargaining and matching of behavior styles between socializer and socializee (cf. author's paper on "identity Bargaining" forthcoming). It

is not even possible to illustrate all the hypotheses stated here. We can only selectively treat the central variables and key hypothesis. Some of the ideas are rather obvious anyway.

To introduce the interpretations of the case material, we can sum up many ideas about disciplinary ideology in statements about the basic motivation or key aims of members of these departments, which in turn are implied in the peculiar problems of interest to the discipline, and internalized in terms of commitment to the task and to the disciplinary title, as well as to their department, or to positions within the department, or to colleagues. To get right to the point, the key motivations include, for mechanical engineers, the desire to design reliable and practical machinery; for physiologists, interest in why and how organisms work; for philosophers, the desire for intellectual argument; and for anthropologists, the searching into human motivations themselves. What follows will consist largely of the researcher's quasi-statistical ratings of the key variables across the four departments.

Strongly related to the intrinsic motivation of a discipline is what seems to be the most central factor of all in distinguishing academic fields from one another, namely the degree of invariability (or hardness) of the research design most generally used in the discipline.[1] The physical sciences, due to the greater possibility of controlling almost all intervening variables, or setting up highly regulated comparison and control groups, naturally have the most invariable research design. Mechanical engineering also is largely of this model when experiments are done. The next category of discipline is more variable in method, and that is those sciences with more variable experiments and

observations, which use what is often called the quasi-experimental design for research. Physiology is the best example here, since living organisms are less amenable to control, so that the results of experiments must frequently be based to a large extent on insight and post-hoc observations, with a careful eye out for unexpected findings, and the attempt to explain them on the basis of one's knowledge of the set of variables operating. The third and most variable kind of design, if it can be called a design at all, is that of the case study, which is typified by the humanistic disciplines, philosophy and anthropology, which rely on intensive analysis of single cases (as in most of anthropology) or single issues (in philosophy). The case study normally takes a more exploratory approach and less one of hypothesis-testing. It operates more in the "context of discovery" than in the "context of verification." This variable, namely the type of research design, seems so centrally important largely because it is so closely integrated with other related background and social ecological factors, such as the laboratory vs. the field or library setting for research. Although the stereotypes of the humanities as "softer" than the social sciences would have suggested initial classification of philosophy as "softer" than anthropology, this was not the case in practice, especially with the very strong emphasis on linguistic analysis in this philosophy department. We found then that the rankings of the disciplines from hard to soft in methods ran as follows: M.E., physiology, philosophy, and anthropology.

A number of subordinate factors follow closely on the type of research methodology, including the degree of specialization of tasks. The technical nature of both engineering and physiology dictates that these

fields will be highly specialized. Philosophy, insofar as it deals with scientific questions, is also highly specialized in its research on any particular problem, though of course a philosopher can at another time claim literature or music as part of his overall domain, again calling for him to be a specialist, even though in two or more separate fields. Perhaps the philosopher can best be described as a "serial specialist," but "a generalist overall." Anthropology (excepting in a sense some of those engaged almost exclusively in purely archeological exploration and classification) seems to be the most wide-ranging and least specialized of all the departments, since its members engage at various times on the same project in hard as well as soft research, theoretical, linguistic classification, as well as participant observation of the unique social habits of their subjects.

Somewhat related, but not necessarily correlated with specialization, is the degree of abstraction commonly used in a discipline, as opposed to a diffuse, descriptive approach. Philosophy operates most consistently on a high level of abstraction, as a rule borrowing its first-hand or perceptual data from other fields, whether science or humanities. The very nature of philosophical argumentation practically demands this. Physiology also operates at a moderately high level of abstraction, since basic research demands hypothesis-testing, at least occasionally of general hypotheses, though not such abstract ones as are more characteristic of say physics. Interestingly, engineering, which borrows heavily from the physical sciences, and physics in particular, seems to operate in general at a lower level of abstraction than physiology, since the work of the engineer is more applied, taking as it does hypotheses from the pure

physical sciences with the goal of putting them into practice, or making them operational or workable, by say designing machines based on scientific principles. This is not to say that some engineers do not operate on a highly theoretical level, but that most seem to do so less often than the physiologists. Finally, the anthropologists, with the exceptions of many linguists and certain archeologists, generally operate at a rather low level of abstraction, with an attraction to ethnographic detail as a basis for understanding a group of people, typically achieving generalizations only as the end product of their descriptive efforts.

Separate from the degree of abstraction, though in practice usually inversely related to it, is the degree of application typical of the field. Mechanical Engineering again has as its unique goal the application of scientific principles to practical mechanical problems, making it the most applied of the disciplines studied here. Physiology would seem to be next in order of application, since many of its problems have direct application to the practice of medicine. Applied anthropology is a field in its own right, especially with the current push toward "modernization" among lesser developed nations today. However, it still seems as though anthropologists generally have a less applied, and more strictly scientific and detached, though sympathetic object in their studies. Exceptions would be current interest in the Viet-Nam war and the Negro question (Braroe and Hicks: 1967). Philosophers both in stereotype and even in practice are typified by abstract thinking, even on potentially applied issues, such as the ethics of war, politics, or scientific methodology.

Further indicators of the objectivity or utilitarianism of the disciplines are the ways in which success is regarded or achieved. If

success is regarded as the achievement of some end product, most characteristic of engineering, one would expect greater detachment, and less intrinsic interest in the subject matter, since in this case the professional's expertise is essentially a tool for the accomplishment of some product, rather than say knowledge for its own sake, as seems most characteristic of philosophy and anthropology. Physiology appears to be somewhere in between, since it is a pure science with frequent usable medical "products" (techniques, etc.) resulting from its labor.

A frequently mentioned means to achievement of success is simply hard work. This seems to be another possible indicator of lack of purely intrinsic interest in one's work, again most frequently mentioned by engineers, followed in order by physiologists, philosophers, and least by members of the "grass roots" discipline sometimes regarded as a way of life, namely, anthropology.

Other variables which generally correlate with hardness of methodology include the relative invariability of selection factors (for selecting students into the department), as well as the ecological distance of offices, laboratories, and places of work. Although there did not seem to be a correlation here, other factors that might need to be considered in other settings or departments might be the degree of professionalization in the discipline, as well as the quality of both faculty and students.

In summary thus far, our ratings and interpretation of the variables demonstrates that the characteristic hardness of research design and methods is correlated with degree of specialization, abstraction, extent of application, and the extent to which success is regarded as a product and as consisting primarily of hard work. On this basis, according to

our hypothesis that hardness of methodology leads to social distance, we would expect that social distance would be greatest among the engineers, followed by physiologists, philosophers and anthropologists. Since philosophy is a humanistic discipline we originally expected greater social relevance from the philosophers than from the representatives of the more social scientific discipline of anthropology. Such was not the case.

However, we must still consider the other main independent variable of the central hypothesis, namely the social relevance of the discipline, or the degree to which the specialist's typical day-to-day work as a specialist has direct impact on the lives of men. The view of this research is that intrinsically, anthropology is the most socially relevant, since it has societies and groups as its specific domain of scientific (or some would prefer "humanistic") interest. Physiology, with its applications to medicine and human betterment also has rather immediate day-to-day social relevance, especially since many specialists in this field work directly with people in their experiments on the human body. Philosophers, especially social philosophers and the more broad, historically and ethically oriented thinkers, deal with specifically human and social problems, though most frequently in an abstract and detached way. This detachment, along with the emphasis on linguistic analysis and scientific applications current in philosophy seems to give it less overall social relevance than the other fields, except for mechanical engineering, which finds its day-to-day work applied to mechanical things, or theories about mechanical things. Although the ultimate social impact of the engineer's work may be great, such as in air pollution control, automobile traffic safety, etc., and industrialization in general, these

effects are generally the end product of a team of research workers, and only the effects of the engineer's product as it were, seldom requiring him to deal directly with the people whose lives are changed by his more restricted and mechanical daily work.

Another important factor correlated with social relevance is the degree to which the work of the discipline requires its members to become in a sense marginal to the mores of his own society, which is a requirement of many kinds of observations in the social sciences, especially anthropology, where participant observation demands that one analyze his own effect on the group he is observing and studying, which immediately sets him apart from the group. And if that group he is studying is his own society it applies just as much, at least if he is to boldly challenge the assumptions commonly held by the other members of his society. But whether one studies a society as a stranger or as a participating member, during the time in which he makes his observations, in order to gain more insightful hypotheses, he is necessarily required to challenge the assumptions made about that society by its incumbents. This is also to a large extent true of the philosopher of society, who in addition, sets himself outside the mores even more than the anthropologist since his categories are generally more abstract and further from the categories used by the members of the society itself. But only a relatively small proportion of philosophers are social philosophers, giving us reason to believe that on the whole philosophers are more in tune with the accepted way of life in their society. Physiologists must set themselves apart from the group occasionally in order to take account of the feelings of their human subjects, and the implications of

their work for the customs of their society, such as the possible effects of the birth-control pill. But the mechanical engineers admittedly seem to be the most satisfied with the established system and assumptions of their society, probably since they make a comfortable living, and their work does not require them to think in terms of human impact (except in dealing with their business associates).

Within this category of marginality, it would be worth considering the degree of marginality of the work of a discipline to the university setting, but it would seem in the present case that the relevant mores of the university closely approximate those of the society at large, or those of other large organizations within the society.

Apparently strongly correlated with marginality, is the degree of empathy required. Anthropology again requires insight into the feelings and thoughts of the people it studies, as does social philosophy to a somewhat lesser extent. Physiology requires it occasionally and for certain problems, and mechanical engineering requires empathy least of all in its day-to-day work.

A socially relevant aspect of success in a field of study is the degree to which success itself depends on the esteem and appreciation of one's work by his colleagues, rather than on such more objective criteria as adequacy and degree of quantification of data. Philosophy and anthropology are apparently equal here since they are both dependent to a high degree on verification by one's peers. Physiology is subject to this criterion of judgment to a lesser extent, and mechanical engineering least of all, since the true test of an engineer's work is whether or not his invention or product does the job it was designed to do.

Other factors that might have been considered, which potentially correlate with or modify the effects of the social relevance of the discipline include the presence of a sponsorship or apprenticeship system, whether or not teaching is a future goal over work in industry, whether the faculty are of high prestige, whether they are cosmopolitans or locals (oriented to the profession rather than to the department or school), age or generation differences, whether they are generalists or specialists, degree of commitment to the specialty, and the "mix," or relative emphasis on teaching, research, administration or public service.

However, on the basis of interpreting the observations made on those variables that seemed most salient to social relevance in the present case studies (namely, marginality, empathy, and success being dependent on esteem of colleagues) the usual stereotypes are supported for the disciplines at either end of the continuum. We saw that anthropologists apparently have the most socially relevant discipline, and the mechanical engineers the least socially relevant discipline. There is, though, an important reversal of our initial expectation for the other two. Physiologists appear to be doing work that is more directly relevant to human and social betterment than the philosophers. Thus our predictions for social distance (based on hardness of methodology and social relevance) will have to be reversed. Our revised expectation then would be that due to lower social relevance of their day-to-day work as specialists, philosophers will have a more socially distant relationship with their associates than will physiologists. The following consideration of the social distance variable will bear out this insight.

Social distance is defined as the degree to which the members of a discipline maintain businesslike or "secondary" relationships, having infrequent interaction with their associates, rather than close, intimate, warm, "primary" relationships with more frequent contact, with more people. Social distance seems in general to be lowest among the anthropologists, who are noted for the large number of parties open to all students and faculty (including traditionally one party after every doctoral preliminary exam, which are held separately for each student). Philosophers have some social gatherings, but usually in smaller more select groups, often based on common interest in some topic of discussion. Physiologists have even less frequent, though somewhat warmer interaction, except for some advisor-advisee relationships, and with work group associates. Mechanical engineers, while joining together for occasional events, such as a golfing party or infrequent departmental parties, tend to make friends with those who work near them, or live near them, or through their wives, making them the least gregarious of all. Judgment of rank ordering then indicates that social distance increases across disciplines from anthropologists to philosophers to physiologists to mechanical engineers, with philosophers and physiologists virtually indistinguishable on this variable. This same ranking of the tendency to social recreation seems to apply not only to relationships between students in each department, but as well to faculty-student and faculty-faculty relationships.

At the same time there seem to be no significant differences across departments on the degree of hierarchicalist behavior between faculty and students either in or out of the classroom, with this factor

apparently dependent more on the individual professor than on his specialty.

There seems to be a consistent patterning of variables correlated to social distance, which even finds the strength of cliques (amounting to factionalism in some instances), based more on personalities, though often with some grounding in ideas, special interests or philosophies of education), dependent upon the degree of objectivity of the disciplines, with the anthropologists having the strongest cliques, followed by the philosophers, and both trailed at about an equal distance by physiologists and mechanical engineers.

The breadth and number of activities of departmental members also follows a rather consistent pattern, with the anthropologists being the most liberal (especially politically), the most actively involved in social issues, having the widest circle of friends, even outside their discipline, and being the most communicative. The mechanical engineers are the least active. Philosophers and physiologists are generally somewhat between these two, depending on the particular item in question. For example, it seems on the basis of our overall impressions that philosophers have a wider circle of friends and outside interests than do physiologists, but are about equal to them in liberality and communicativeness. However, as mentioned earlier, the philosophers were least active politically, while many physiologists were often very active.

Thus in summary we can see that in general the physiologists and philosophers are not too different from one another on most of these dimensions (namely social distance, hierarchicalism, cliques, as well

as breadth and number of activities), and both are somewhere between the anthropologists and mechanical engineers. As a whole then, inspection of the quasi-statistical rank orderings of these comparative elements demonstrate the reasonableness of the major hypothesized relationship between ideology and social behavior style of the specialist. Yet the initial assumption concerning the order of objectivity of ideologies (translated hardness of methodology) sees a reversal of philosophy and anthropology, so that the disciplines with the reputedly more objective ideologies are represented in descending order by mechanical engineering, physiology, philosophy and anthropology.

Significance

The utility of these elements, and their grouping under the three major variables of the central hypothesis (namely, ideological values in terms of methodology and social relevance, and behavior style in terms of socio-emotionality or social distance) should be a genuine aid to further analysis and research on training programs in departments in many kinds of large corporations. The elements take account of both organizational and interactional variables. This paper has illustrated the use of these elements of socialization, and pointed out additional variables which might be applicable in other settings.

Aside from this methodological contribution, this paper (by means of comparative rank orderings of the several elements) has brought further evidence to bear on the proposition suggested in the literature of occupational sociology that there is a relationship between the values of an occupation and the social behavior style of the worker

(cf., e.g., Cottrell's railroader: 1941). It has done this in the potentially highly socially influential setting of disciplines of the university. And it has done so in a way that gives much insight into the process of adult socialization in the nearly unresearched central socializing relationship, namely the graduate student-faculty relationship. Finally, the treatment of the "elements" of socialization has elaborated at some length on the values or ideology associated with identification with an occupation (which was one of the key elements delineated in the benchmark study by Becker and Carper).

Furthermore, the central suggestive hypothesis has been reasonably well demonstrated by this preliminary study, and we can reassert for future verificational testing that: Social distance between a specialist and his associates, both on and off the job, increases 1) with the hardness of his typical research design, and 2) with a decrease in the social relevance of his formal day-to-day work as a specialist. But many traditional stereotypes are not supported according to observations made here. In practice it was found that social distance turned out to be lowest among anthropologists, and highest among mechanical engineers, with physiologists and philosophers somewhere in between.

Perhaps the more universal theoretical importance of the ideas expressed in this paper lie primarily in their attempt to explicitly state a set of deductively interrelated hypotheses central to research and understanding of the processes and mechanisms operating in the relationship between an adult professional socializer and socializee in the context of an actual organization devoted to learning. The approach is at once analytical and holistic, predictive and explanatory,

and should provide a guide for future investigation and empirical research, as well as become the basis for introducing and evaluating innovative policies in departments by management, as well as providing a basis for apt career guidance by career and educational counselors. Further, the present hypotheses give us even more explicit guidelines for researching the more specific problems of career identity bargaining, meshing of socializer-socializee interaction styles, and means and goals of education. Finally, the hypotheses with slight modification also begin to suggest, at least by analogy, many possibilities for the needed comparison of socialization and resocialization outcomes and criteria for assessment of outcomes across various organizational settings, such as the prison, hospital, college, school or factory.

FOOTNOTES

1. Objectivity of ideology is here defined as the hardness, or degree of invariability of the typical research methodology. Taking a clue from Campbell and Stanley ("Experimental and Quasi-Experimental Designs for Research," Chicago, Rand-McNally, 1963), a hard research design is the use or the amenability to use of an "experimental design," with the possibility of interval measurement scales. For example, the classical experimental, or the true experimental design uses a control group to compare the effects of an experimental variable to that of a condition in which there is no such experimental variable, so that all other intervening variables are either controlled or randomized. Such a design is possible to the greatest extent in mechanical engineering among those departments studied. A medium design would be a "quasi-experimental design," perhaps with ordinal levels of measurement, a design in which controls or randomization of all possible intervening variables is not possible. This is the case in research on living organisms, personalities, or social science in general. A soft design is typified by the case study, perhaps combined with a nominal level of measurement, since here little attempt is ordinarily made to control extraneous variables except after-the-fact. Simple comparison groups are used rather than identical control groups. Case studies are used in certain types of social scientific research, especially in anthropology, and by analogy in the humanities. For example, a writer of literature generally takes his material from observations and ad hoc interviewing, as does the newspaper reporter.

REFERENCES

Becker, Howard S., and James W. Carper
1956a "The Development of Identification with an Occupation." American Journal of Sociology: 189-198.
1956b "The Elements of Identification with an Occupation." American Sociological Review 21: 341-348.

Braroe, Niels, and George L. Hicks
1967 "Observations on the Mystique of Anthropology." Sociological Quarterly (Spring): 173-186.

Coser, Lewis, and B. Rosenberg.
1964 "The Sociology of Knowledge." Chap. 16 in L. Coser and B. Rosenberg (eds.), Sociological Theory, 2nd ed. New York: Macmillan.

Cottrell, W. Fred
1941 The Railroader. Palo Alto: Stanford University Press.

Knapp, Robert H., and H. B. Goodrich
1952 Origins of American Scientists. Chicago: University of Chicago Press.

Lewis, Lionel S.
1967 "Two Cultures: Some Empirical Findings." Educational Record 48 (Summer): 160-167.

Roe, Anne
1953 The Making of a Scientist. New York: Dodd, Mead.

Slawski, Carl
1969 "The Career Ideology of Specialists." Unpublished Dissertation done while a student at the University of Illinois, Department of Sociology.

Snow, Charles Percy
1959 The Two Cultures and the Scientific Revolution. Cambridge, England: Cambridge University Press.

Wilson, Logan
1942 The Academic Man, A Study in the Sociology of a Profession. London: Oxford University Press.

Znaniecki, Florian
1940 The Social Role of the Man of Knowledge. New York: Columbia University Press.